

## SEQUENCE LISTING

- <110> GARCIA-BLANCO, MARIANO A. CARSTENS, RUSS P.
- <130> 1579-321
- <140> 09/465,802
- <141> 1999-12-17
- <150> 60/112,856
- <151> 1998-12-17
- <160> 49
- <170> PatentIn Ver. 2.
- <210> 1
- <211> 59
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artifitial Sequence:Primer
- <400> 1
- ctgcaggaca aactettege ggtetetatg cateeteega aeggtaagae eetaagett 59
- <210> 2
- <211> 38
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- <400> 2
- cccgggggta ccgggcgaat tcgaattcga gctcadtc
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- <210> 3
- <211> 32
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Primer
- <400> 3
- cccgggacta gtaagcttag gctcttggcg tt

32

38

<210> 4

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                                                                     30
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ccggcatatg gcggccgcca aacaaattca aagagaac
                                                                     38
<210> 11
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<212> DNA
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<223> Description of Artificial Sequence: Arimer
<400> 11
ccggatgcat atcgatgcga ttgaacacat ggaaaa
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<210> 12
<211> 65
<212> DNA
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<223> Description of Artificial Sequence: Primer
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ggaagcgact ccccgtcgtg tagataacta cgatacggga gggcttacca tctggcccca 60
gtgat
                                                                     65
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<211> 63
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<223> Description of Artificial Sequence: Primer
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<400> 13
cgatcactgg ggccakatgg taagccctcc cgtatcgtag ttatctacac gacggggagt 60
cgc
<210> 14
<211> 36
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer
<400> 14
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ggccgcaaac aaattcaaag agaacggact ctgtat
<210> 15
<211> 35
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial\Sequence:Primer
<400> 15
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cgatacagag tccgttctct ttgaatttgt ttggc
<210> 16
<211> 36
<212> DNA
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<220>
<223> Description of Artificial Sequence Primer
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ggccgcgggc tgatttttcc atgtgttcaa tcgcat
                                                                    36
<210> 17
<211> 34
<212> DNA
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cgatgcgatt gaacacatgg aaaaatcagc ccgc
<210> 18
<211> 45
<212> DNA
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: Primer
<400> 18
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                                                                    45
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<211> 43
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<223> Description of Artificial Sequence: Primer
cgatacatgg aaaaatcagc cacagagtc cgttctcttt ggc
                                                                    43
<210> 20
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211> 43
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<210> 22
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<223> Description of Artificial Sequence: Primer
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<210> 23
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<223> Description of Artificial Sequence: Primer
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                                                                    43
<210> 24
<211> 45
<212> DNA
<213> Artificial Sequence
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<400> 24
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ggccgccaaa gagaacggac tctgtgggct gatttttcac gctat
<210> 25
<211> 43
<212> DNA
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<400> 25
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cgatagcgtg aaaaatcagc ccacagagtc cgttctcttt ggd
<210> 26
<211> 45
<212> DNA
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<400> 26
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ggccgcaagt ggtggcctaa ctacggctac actagaagga cacat
<210> 27
<211> 43
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer
<400> 27
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43
cgatgtgtcc ttctagtgta gccgtagtta ggccaccact tgc
<210> 28
<211> 26
<212> DNA
<213> Artificial\Sequence
<223> Description of Artificial Sequence: Primer
<400> 28
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ggccgcgggc tgatttttcc atgtat
<210> 29
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer
<400> 29
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cgatacatgg aaaaatcagc ccgc
<210> 30
<211> 62
<212> DNA
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<400> 30
ggccgcgggc tgatttttcc atgtgggctg atttttccat gtgggctgat ttttccatgt 60
<210> 31
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<212> DNA
<213> Artificial Sequence
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cgatacatgg aaaaatcagc ccacatggaa aaatcagccc acatggaaaa atcagcccgc 60
<210> 32
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<220>
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<400> 32
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cccgggtcta gatttatagt gatgcccagc cc
<210> 33
<211> 32
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<223> Description of Artikicial Sequence: Primer
<400> 33
                                                                    32
cccggggaat tcaccaccat gcaggcgatt aa
<210> 34
<211> 57
<212> RNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence: misc_RNA
<400> 34
caaacaaauu caaagagaac ggacucugug ggcugauuuu Uccauguguu caaucgc
                                                                    57
<210> 35
<211> 59
<212> DNA
<213> Artificial Sequence
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<400> 35
gactccccgt cgtgtagata actacgatac gggagggctt accatctggc cccagtgat
<210> 36
<211> 29
<212> RNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence: misc_RNA
<400> 36
caaacaaauu caaagagaac ggacucugu
                                                                    29
<210> 37
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<211> 28

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<223> Description of Artificial Sequence: misc_RNA
<400> 37
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gggcugauuu uudcaugugu ucaaucgc
<210> 38
<211> 37
<212> RNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: misc_RNA
<400> 38
caaagagaac ggacucugug ggcugauuuu uccaugu
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<210> 39
<211> 37 7
<212> BHA DNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence: misc_RNA
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caaactctac ggacucugug ggcugauuuu uccalqgu
<210> 40
<211> 37
<212> RNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: misc_ANA
<400> 40
caaagagaac ggacucugug ggcugaaaga uccaugu
                                                                    37
<210> 41
<211> 37
<212> RNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence: misc_RNA
<400> 41
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caaagagaac ggacucugug ggcugauuuu ucagcgu
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<210> 42
<211> 37
<212> RNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: misc_RNA
<400> 42
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aagugguggc cuaacuacgg cuacacuaga aggacac
<210> 43
<211> 17
<212> RNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: misc_RNA
<400> 43
                                                                    17
gggcugauuu uuccaug
<210> 44
<211> 51
<212> RNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: misc_RNA
<400> 44
                                                                    51
gggcugauuu uuccaugggg cugauuuuuc cauggggcug auuuuudcau g
k210> 45
<211> 20
<212> RNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: misc_RNA
<400> 45
                                                                    20
ccauggaaaa agcccacaau
<210> 46
<211> 20
<212> RNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: misc_RNA
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<400> 46
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ccauggadaa agcccacaac
<210> 47
<211> 65
<212> RNA
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<223> Description of Artificial Sequence: misc_RNA
<400> 47
caaaccaaag cacaggccaa 🍕 agaacggac cucugugggu ugauuuuuuc caugcguuug 60
auugc
<210> 48
<211> 1200
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Intron
<400> 48
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actgaatata ggagttaaaa aagacteggt getttgg🎝ag geageaggea gettetagaa 120
taactcttgt ggtcttggta tatttataat gatctttct tggtggtgca gctggcgtca 180
tgccagtggc catggaaaaa tgcccacaat gttcaaagtg cttgaagatt atcttccacc 240
cccaccctgt tttcaagccc ttctttctgg tctgtcttgt \taggactgca cacttcccgt 300
gatcactgtg tctgagtgca cgtgggcctt gcgtttgcat g&ccgtcgag tctgcactct 360
ctgattatta agccagactt ggttgccttt tatgctagtg acatagagaa atgctagcat 420
gataggatto acctaacgaa agtittigtic tittggittega tic\deltaacaceg gateettice 480
aaaactggag aatggttatc ttctagtgcg tatgacactg gaggatagtg aaggcagatg 540
gtggagtttt cagttatcat tcttcacacg cagacatatt catattagaa aaggaaacaa 600
accataaatc cagttttttc tgttaccagt attacacttt ctgccatqtt ctttcaatga 660
tcatataaag caagatgatt ttcggcctga atgaaattaa ccagaatca gtcaccaaga 720
taaagtccca ccctggttcc catggagcct gagggatgtg tgggatgtcoldsymbol{\lambda} acctgatctg 780
ccgtgcttta ttccatcaca cagaaaatag aagagcctcc ccttttctca 🕻aattggagt 840
ctgcatccaa caggaccaga acccagatta gccctcaggg tattatactt ttggaaacc 900
cactcccaaa tccatatgca aacaaattca aagagaacgg actctgtggg ctgatttttc 960
catgtgttca atcgcatgca tgtctaaggt ggtgacgccg gtgtggtgat ggg&ctgcag 1020
aggtgagetg geeggtgtet eteagtgtet ettggttgtg ggetttgtgg aegggetgea 1080
gttggaatct cctgatggcc agcacccct ggacctgctg ggacaaggcc tcttggtcc 1140
aaggcccct ccacaatcat tcctatgtct agcctttttc ttgcttcgtt tgttttctag 1200
<210> 49
<211> 1207
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Intron
<400> 49
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gtaacaatgc ttcatttttg tctttttta aaaagaaagc tggatataga agctgaaaag 60 acttggtgct ttgggagact gcaggcagct tataggataa ctcttgtggc cttggtatat 120 ttataataat ctttcttcgg tgatgcagct ggtatgatgc cagtagccat ggaaaaatgc 180 ccacaacgtt caaagtgctt gctccaattt cttctagaga ttagcctcca ccccaccca 240 gtttttaagt tgttocttct ggttgatctt gtttaggctg cacatttccc atcattactg 300 cacattaaca ccatttaasa cacacgette catgeetgtt taatacgggg catttgaata 360 tcagcagagt ttgtccaagt ttttagggaa atattggcaa gatgcaattt gttcaacaaa 420 gcatcatttc tttggttgca tggttgatcc ttatgagttg ctgttcttga ccttgttgca 480 ccaaatttga ggggagctca tcttaatgaa tgtactactg gacgctacta aaggcaaaag 540 gttgactttt taggtttgtc atgactcaca tccaaatgtt tattaatgaa aagagaaaaa 600 gcccagtttt tttggttacc aagatgatgc ttgettccat ttctttttgt caatgctatg 660 tagggcaaga tggtatcgca gaagtaaaaa taaccagagc ctggtaacca agacaacctt 720 ccaccccaat tggttcccac agggccagga ggatgggtga qgtgcccatc tgggcttatg 780 tgcagtgtgt tgtcttaaaa cacagcaatt tagatagaac taccetttcc tcttggtggg 840 agtetgeage caacaggace agaaccaget tggeettetg ggeaccatae ttttggaaaa 900 ccacccctaa atgcaaacca aagcacaggc caagagaacg gacctctgtg ggttgatttt 960 ttccatgcgt ttgattgcgt gcatgtgtag gaggtgaagc cggtgtggtg asgggcctgt 1020 ggaggtgagc tggtcagtgt tgctccgtgt ctctcggttg tgggactttg tggatgggct 1080 gcagtcggaa tctcccagtg gccagcaccc cctgaagccc ccggtgcgac gccttgtggt 1140 tccacagccc cctccacaat cattcctgtg tcgtctagcc ttttcttttg cttcccttgb 1200